

**U.S. Senate Field Hearing
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Bismarck, North Dakota**

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North Dakota's Bakken Resource

- The Bakken Formation is an unconventional oil and gas resource that underlies most of the western portion of the state of North Dakota (> 8.4 million acres).
- The original oil in place in the Bakken Formation within the thermally mature portion of the State of North Dakota is estimated to be **149 to 280 billion barrels**; however, using current drilling and completion practices, only **2.1 to 4.3 billion barrels** are recoverable.
- It is apparent that technology and the price of oil will dictate what is potentially recoverable from this formation.

North Dakota's Bakken Opportunity

- Full resource development could move North Dakota from number 8 to number 5 among US states in daily production. To achieve those production levels, the State is working to increase pipeline capacity, natural gas processing, electric generation, transmission, and refining capacity. The State is also working to recruit and train the roughly 12,000 new workers that will be required for the energy sector.

North Dakota's Response

- Current leasing (**106,000 acres**), drilling (**86 rigs**), and production (**>165,000 barrels per day**)
- Formed the Pipeline Authority in 2007.
- Signed historic tax and regulatory agreements with Three Affiliated Tribes.
- Department of Mineral Resources and Pipeline Authority update their websites daily and publish semi-annual and quarterly newsletters.
- Efforts supported by the State to increase pipeline export capacity include:
 - In 2006, Enbridge implemented their Phase 5 expansion to increase their crude oil capacity from 80,000 to **current 110,000 bpd**.
 - Enbridge is now implementing Phase 6, a \$130 million dollar expansion that will increase capacity by an additional 50,000 bpd for a total of **160,000 bpd**. After completion of Phase 6 Enbridge will have doubled their pre-Phase 5 crude carrying capacity of about 80,000 bpd.
 - Belle Fourche Pipeline reconfigured their pipeline system serving western North Dakota to reverse traditional north to south flow on one of its pipelines and construct a 35- mile loop into the Alexander area. This created additional outlets for southwestern North Dakota-produced crude oil to go east or west to markets.
 - Butte pipeline (**current 92,000 bpd**) is implementing a drag reducing agent project on their pipeline to Guernsey, WY that is expected to increase throughput as much as 10%, **roughly 10,000 bpd**.

- Current efforts supported by the State to increase non-pipeline export capacity:
 - Rail cars are **now shipping 11,000 to 17,000 bpd** from Dore, Stampede, and Ryder.
 - Additional rail shipping stations are planned for Stanley and Minot.
 - A rail shipping station is being evaluated for New Town.
- Gas gathering and processing expansion efforts supported by the State include:
 - Four new gas plants (Ray, Nesson, Robinson Lake, and Stanley).
 - Expansion of three gathering systems to collect previously flared gas.
 - Proposed expansion of plants and gathering systems at Robinson Lake, Stanley, Tioga, and Trotters.
- Current efforts supported by the State already underway to increase refinery capacity and fuel production include:
 - Oil and Gas Research Council funding for feasibility study of a private refinery in the Williston area due out in September.
 - Assisting Three Affiliated Tribes in working on permitting a refinery within the Reservation.
 - American Lignite Energy is exploring a coal-to-liquids plant that would produce over 1.38 million gallons of liquid fuel per day. The ALE project is enrolled in Lignite Vision 21 program.
 - State sales tax incentives to help Tesoro improve reliability and increase low sulfur diesel fuel production (**current input capacity 58,000 bpd**). Tesoro is investing \$125 million in upgrades to their refinery including expansion of low sulfur diesel production.

Federal Role

- Provide Federal tax exempt status for Pipeline Authority and Transmission Authority bonds.
- Streamline and expedite the permitting and tariff process for interstate pipelines.
- The refinery permitting process of four to six years and is too long and difficult. We need to ensure adequate resources at permitting authorities to shorten review timeframes, and empower the U.S. Department of Energy to serve as a facilitator for timely permit reviews.